RICE UNIVERSITY

Off the Wall: Exploring waterfront reciprocities of surface and space

by

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ABSTRACT

Off the Wall:
Exploring waterfront reciprocities of surface and space

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Jennifer Marie Painter

Off the Wall explores how Tampa's central business district sea wall may become more than a water/land boundary, functioning as an interactive surface and infrastructure mechanism that unifies, organizes, and defines public waterfront venues. Tampa's history, culture, and most significant community events share strong ties to interactions at water's edge. Wall is studied as an assembled surface with primary components and as a surface in transition. A register translates water/land surface conditions (tide fluctuations, water traffic wakes, shifts in land elevation) to a visible, mechanical response. Oriented perpendicular to the water's edge, the register changes form over the course of the wall from overhead condition to a less conspicuous marking of an implied margin edge. The register provides a framework for attachment of special event props or shading devices and a location for nighttime lighting.
OFF THE WALL
exploring waterfront reciprocities of surface and space

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Thesis 2004 • Master of Architecture
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MANY THANKS TO

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sibling call of duty through seven years of architecture school...
your days of helping me move in and out of studio each
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FOR JULIO SANCHEZ

mi abuelo y mi inspiración... doy gracias a mi Dios en toda la
memoria de usted
OFF THE WALL

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RECORD OF EVENTS
OFF THE WALL explores how Tampa's central business district sea wall may become more than a water/land boundary, functioning as an interactive surface and infrastructure mechanism that unifies, organizes, and defines public waterfront venues. Tampa's history, culture, and most significant community events share strong ties to interactions at water's edge. Wall is studied as an assembled surface with primary components and as a surface in transition. A register translates water/land surface conditions (tide fluctuations, water traffic wakes, shifts in land elevation) to a visible, mechanical response. Oriented perpendicular to the water's edge, the register changes form over the course of the wall from overhead condition to a less conspicuous marking of an implied margin edge. The register provides a framework for attachment of special event props or shading devices and a location for nighttime lighting.
OFF THE WALL       INTRODUCTION

The work of Office dA gives surface a structural role in defining architectural character and identity. Surface is explored as a primary field of construction: building as a function of cladding. Surface is not applied to a pre-existing wall as symbolic or linguistic veneer. Surface, instead, is understood and designed as a constitutive spatial element: a means of architectural and cultural signification.

Projects of Office dA address and critique the varied, more detached relationship between surface and space evident in the work of such architects as Herzog & deMeuron and Gehry. Herzog & deMeuron’s highly developed skins, details, and material innovations are often allied with off-the-shelf plan and sectional relationships. For Gehry, extraordinary spatial and formal manipulations are clad in signature metal panels rendered indifferent to the geometries and spatial constructs to which they are intended to correspond. Office dA projects create conditions where surface and space are understood as inherently linked entities. Space and language are an effect of surface constructions. Surface becomes that which qualifies, substantiates, and orders corresponding space.

The correlation of building envelope and building interior exemplifies one relationship of surface to space. OFF THE WALL explores the relationship of surface and space within a larger urban context:

- Investigate surface and space as reciprocal and codependent entities
- Examine how deviations of surface may coincide with and determine specific spatial deformations
- Study transformations and manipulations of surface as a mechanism for designing and ordering public space within an urban framework.
Office dA
Witte Arts Building,
Green Bay Wisconsin,
and Tongxian Arts
Centre, Beijing, China

Herzog & deMeuron
Suva House

Gehry
Guggenheim Museum,
Bilbao
The site of my investigation is the sea wall bordering the central business district of Tampa, Florida. The existing sea wall follows the water edge of the Hillsborough River, Seddon Channel, and Garrison Channel, acting as a surface that bounds the downtown city core. Tampa’s history, culture, and most significant community events share strong ties to the water edge, affording 3 modes of interaction with the sea wall as surface and adjacent river walk as space:

1. activities occur in water along the sea wall
2. activities negotiate the sea wall (engage the wall surface by transfer from water to land/land to water)
3. activities occur within adjacent spaces along the sea wall

City development guidelines define a twenty-three foot margin at water edge in the waterfront overlay district to encompass the sea wall/river walk component. Here, margin prescribes a meeting of surface and space with particular programmatic implications:

- Surface as envelope of city space
- Surface as unifying element to connect and organize the currently disjointed public spaces of the downtown waterfront
- Surface as dynamic entity, transformed along its course to provide space for interaction in water (boating, Gasparilla water procession/“Invasion”, University of Tampa crew team exercises and competitions), access to water (an uninterrupted pedestrian path along the water for general access and accommodating Gasparilla Day Parade, Gasparilla Distance Classic, and Hops Marathon by the Bay water edge routes), and activity adjacent to water (corresponding spaces for Gasparilla Festival of the Arts, Taste of Tampa, First Night Tampa, and other waterfront gathering).
OFF THE WALL
interactions at water edge

Gasparilla Day events,
Tampa, Florida
crew team exercises,
University of Tampa
Gasparilla Distance Classic
along the water edge, yesterday and today
Gasparilla Festival of the Arts activating the waterfront

holiday celebrations at waterfront
aerial view of waterfront overlay district
current hub of outdoor community events and former Gasparilla Day invasion site prior to 1970's construction of Lee Roy Selmon Crosstown Expressway overpass
Hillsborough River waterfront at downtown central business district
lower downtown central business district waterfront
(view north)
upper downtown central business district waterfront
(view north)
project site at Curtis Hixon Park waterfront
(view south)
OFF THE WALL     DESIGN APPROACH

How might Tampa's central business district sea wall become more than a water/land boundary? OFF THE WALL explores how the wall might function as an occupiable infrastructure, a mechanism that unifies, organizes, defines proposed public spaces/venues within the waterfront overlay district.

Design strategy:

- Analyze waterfront overlay district's relationship to and role within larger context of the central business district.
- Analyze current state of waterfront overlay district's twenty-three foot surface/space margin: identify discontinuities, special conditions, and site-specific implications.
- Develop concept of sea wall as dynamic, surface/space infrastructure.
- Outline sea wall as overall system.
- Choose locations, moments, key segments along sea wall course for detailed study of surface/space interaction.
- Explore how sea wall as surface may expand, recede, translate, transform to define, qualify, substantiate, and order corresponding space at water edge.
On average, Tampa Bay measures only 12 feet in depth. Manmade shipping channels were dredged to allow safe passage of large vessels. Tampa’s main shipping channel measures 43 feet in depth and follows a 40 mile course to Gulf of Mexico waters. Dredged material enlarged the land area of nearby Davis and Seddon islands.
land mass constant
The controlling depth of the maintained channel was 4 feet for a width of 102 feet from Davis Avenue to a point 200 feet northeast of Columbus Drive Bridge.

Scale: 1:20,000

Date: Jan 1986

1988
Hillsborough County waterways
walking distance: continuous waterfront pedestrian path and extended path to navigate obstacles at water's edge.
community event pedestrian paths, start/finish sites, and outdoor gathering areas
LEADING EDGE

obstacle breaks continuity of progression along waterfront edge; wall transforms, redirecting and connecting pedestrian path
ON EDGE

uninterrupted pedestrian access along waterfront edge; wall acts as reference, marking pedestrian's location along edge
OVER THE EDGE

The wall redefines and mediates water/land boundary, becoming a mechanism for land-to-water/water-to-land transfer.
INSIDE EDGE

wall negotiates water/land boundary, creating and incorporating existing adjacent spaces for gathering
comfortable unobstructed forward vision for various pedestrian experiences

public event: 6'
shopping: 9' - 12'
walking (normal): 15' - 18'
walking (exercise): 30'+
surface panels may be subtracted from framework revealing water accumulation below

location of registers spaced every 40' along sloped wall edge mark water level; water level rises 1' for each register passed

clustered register sequence provides backdrop for waterfront gathering or framework for water event signage

recessed surface records watermarks of changing water levels over time

segment of sea wall surface acts as water access ramp; additional dock floatation units may be added or reconfigured at ramp base to accommodate special water events; aligns with street access to site
interchangeable surface panels allow varying degrees of permeability and transparency along course of sea wall

standard dock floatation unit attached to sea wall framework allows surface to deflect in response to tidal change and occupancy load

sea wall framework acts as datum on site, marking occupant's location along sea wall and within the city grid, serves as point of attachment for special event props, shading devices, and nighttime lighting
register translates changing water/land surface conditions to a visible, mechanical response; alters form over course of the sea wall as overhead condition or less conspicuous marking of implied margin edge; provides point of attachment for water event signage or projection screens
interaction of path, registers, varying water level
recessed surface retains water at high tides
registers mark changing water levels and wakes
recessed surface creates water access point
access ramp responds to changing water level
interchangeable surface panels in sequence
registers translate changing water/land surface conditions to a visible, mechanical response
recessed surface records watermarks of changing water levels over time
floatation units attached to sea wall framework allows surface to deflect in response to tidal change and occupancy load
floatation unit, surface framework, and register connection detail
OFF THE WALL          SITE DOCUMENTATION

Excerpts of City of Tampa government documents identifying current conditions, relevant issues, and proposed restructuring of the waterfront overlay district.

www.tampagov.net

January 1998

Tampa Comprehensive Plan: Central Business District

http://www.fccdr.usf.edu/cims/complans/tampa/Cbd598.pdf

May 1999

Development Regulations: Central Business District, Channel District (May 1999)


July 2001

Cultural District Master Plan

http://www.tampagov.net/dept_public_works/documents/Cultural_District_master_Plan/
OFF THE WALL  


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**Urban landscape:** design trends, issues, considerations, precedents


**Tampa, Florida:** exploring site, context, culture


City of Tampa Government
www.tampagov.net

Official Guide to Tampa's Downtown
www.tampasdowntown.com